

Amendments to the Specification:

Please insert the following paragraph after the title:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is the National Stage of International Application No. PCT/US2005/002941, filed on January 31, 2005, which claims the priority to United States Application Serial No. 60/540,675, filed on January 30, 2004. The content of the prior application are hereby incorporated by reference in their entireties.

Please insert the following paragraphs at page 1, under the full paragraph "CROSS-REFERENCE TO RELATED APPLICATIONS":

SEQUENCE LISTING

This application incorporates by reference the sequence listing saved as an ASCII text file and identified as "14184-041.txt", containing 1,602KB of data and created on July 26, 2006, filed in computer-readable format (CRF) and Official copy (Copy 1 and Copy 2), each encoded on CD-ROM.

Please amend the paragraph beginning at page 10, line 24, as follows:

A wide variety of peptide and non-peptide chymotrypsin inhibitors are known. For example:

1. tissue-factor-pathway inhibitor (TFPI) (Peterson et al 1996 Eur J Biochem 235:310-6; for examples see human (GENBANK® AAH15514 GI:15930156), mouse (GENBANK® AAH36146 GI:23271605), and dog (GENBANK® AAB32443 GI:833924));
2. α -2 antiplasmin (Potempa et al. 1988 Science 241: 699-700, GENBANK® Accession P08697, GI:112907, (SEQ ID NO. 2)
MALLWGLLVLWSCLQGPCSVFSPV SAMEPLGRQLTSGPNQEVSPLTLLKLG NQE
PGGQTALKSPPGVCSRDPTEQTHRLARAMMAFTADLFLSLVAQTSTCPNLILSPLSV
ALALSHLALGAQNHTLQRLQQVLHAGSGPCLPHLLSRLCQDLGPGAFRLAARMYLQ

KGFPIKEDFLEQSEQLFGAKPVSLTGKQEDDLANINQWVKEATEGKIQEFLSGLPEDT
VLLLLNAIHFQGFWRNKFDPSLTQRDSFHLDEQFTVPVEMMQARTYPLRWFLLEQP
EIQVAHFPFKNNMSFVVLPVTHFEWNVSQVLANLSWDTLHPPLVWERPTKVRLPKL
YLKHQMQLVATLSQLGLQELFQAPDLRGISEQLVVSGVQHQSTLESEVGVEAAA
ATSIAMSRMSLSSFSVNRPFLFFIFEDTTGLPLFVGSRNPNSAPRELKEQQDSPGNK
DFLQSLKGFPREGDKLFGPDLKLVPPMEEDYPQFGSPK);

3. members of the serpin α -1 antichymotrypsin family (Forsyth et al. 2003 *Genomics* 81: 336-45; for example see CAS Registry No. 141176-92-3; functional variants thereof are described in European patent application EP1415664 and in Plotnick et al. 2003 *Biochemistry* 33:29927 (for example the P2 (Leu-357) variant);

4. gelin (U.S. Patent No. 5,397,694, partial sequence (aa 1-29) can be found at GENBANK® Accession AAB27871, GI:409493, (SEQ ID NO. 3)
VDEKAEVTDGLCGDWTCAGAQVXQNDAAV), which has been proposed as a treatment for dermatitis as well a periodontitis and gingivitis;

5. hirustasin (Sollner et al. 1994 *Eur J Biochem.* 219: 937-43, GENBANK® Accession No P80302, GI:461516, (SEQ ID NO. 4)
TQGNTCGGETCSAAQVCLKGKCVCNEVHCRIRCKYGLKKD
ENGCEYPCSCAKASQ);

6. certain eglins including egin C (GENBANK® Accession P01051, GI:124128, (SEQ ID NO. 5)

TEFGSELKSPEVVGKTVVDQAREYFTLHYPQYDVYFLPEGSPVTLDLYNRVRVFYN
PGTNVVNHVPHVG) are peptide inhibitors of chymotrypsin. For other examples of eglins, see those disclosed in US 5,180,667, US 634,237,3, US 4636489, Seemueller et al. 1981 *Methods Enzymol.* 804-816, Seemueller et al. 1986 *Research Monographs in Cell and Tissue Physiology* 337-59, Nick et al 1988 *Adv in Experimental Medicine and Biology* 240:83-8, and Schnebli et al 1986 *Pulm. Emphysema Proteolysis* (conference) CAN 107:228147 AN 1987:628147), which has been considered as a treatment for emphysema and for use as a non-steroidal anti-inflammatory agent;

7. inhibitors from *Bombyx mori* (see, e.g., JP 4013698 A2 and JP 04013697 A2; CA registry No. 142628-93-1, (SEQ ID NO. 6) DEPTTKPFCEQAFGDCGTPY and CA registry No. 142628-94-2, (SEQ ID NO. 7) DKPTTEPFIC EQRGNCGTG);
8. the leech derived peptide thrombin inhibitor, hirudin (Zwilling 1968 *Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie* 349:1787-8, CA Registry No. 8001-27-2, see for example, Genbank AAA01384 GI:269388, (SEQ ID NO. 8)
ITYTDCTESGQNLCLCEGSNVCGKGNKCILGSQGKDNCV регионе GDF EPIPEDAYDE). Hirudin variants are disclosed in the literature (for examples see those in U.S. Patent No. 5674838, Great Britain patent application GB2242681 and those described in Wirsching et al 2003 *Molecular Genetics and Metabolism* 80:451-462);
9. a shorter hirudin variant, hirulog/BG 8967 (CA Registry No. 128270-60-0, (SEQ ID NO. 9); FPRPGGGNGDFEEIPEEYL; Angiomax® (bivalirudin) may also have chymotrypsin inhibition activity and may thus be useful in the present invention along with other peptides disclosed in PCT publication WO04076484 and U.S. Patent 5,196,404; and
10. secretory leukocyte protease inhibitor (SLPI) (for examples see GENBANK® CAA28187 GI:758101 (human), GENBANK® NP_445824.1 GI:16758102 (rat), and GENBANK® NP_035544.1 GI:6755574 (mouse); also Farley et al 1997 Drugs and the Pharmaceutical Sciences 84:305-334.

Please amend the sub paragraph beginning at page 16, line 19, as follows:

2. the inhibitor aprotinin or a derivative thereof (TRASYLOL®); CAS Registry No. 9087-70-1; (SEQ ID NO. 10);
MKMSRLCLSALLVLLGTLAATPGCDTSNQAKAQRPDFCLEPPYTGPCKARIIRYFYN
AKAGLCQTFVYGGCRAKRNNFKSAEDCMRTCGGAIGPWENL);

Please amend the paragraph beginning at page 36, line 23, as follows:

Among the useful analgesic peptides are sialorphin-related peptides, including those comprising the amino acid sequence QHNPR (SEQ ID NO: 11), including: VQHNPR (SEQ ID

NO: 12); VRQHNPR (SEQ ID NO: 13); VRGQHNPR (SEQ ID NO: 14); VRGPQHNPR (SEQ ID NO: 15); VRGPRQHNPR (SEQ ID NO: 16); VRGPRRQHNPR (SEQ ID NO: 17); and RQHNPR (SEQ ID NO: 18). Sialorphin-related peptides bind to neprilysin and inhibit neprilysin-mediated breakdown of substance P and Met-enkephalin. Thus, compounds or peptides that are inhibitors of neprilysin are useful analgesic agents which can be administered with the peptides of the invention in a co-therapy or linked to the peptides of the invention, e.g., by a covalent bond. Sialophin and related peptides are described in U.S. Patent 6,589,750; U.S. 20030078200 A1; and WO 02/051435 A2.

Please amend the sub paragraph beginning at page 52, line 1, as follows:

(78) peptide YY and fragments and variants thereof (e.g. YY3–36 (PYY3-36)(N. Engl. J. Med. 349:941, 2003; IKPEAPGE DASPEELNRY YASLRHYLNLYTRQRY (SEQ ID NO:19)) and PYY agonists such as those disclosed in WO03/026591;